

Amendments to the Claims:

1. (Original) A control system for an electrical substation for transmission and distribution of electrical energy comprising equipment for control, measurement, monitoring and protection of the substation, and I/O means for communicating measurements and signals and bus means for transferring measurements and/or signals between transmission and distribution equipment and control, measurement, monitoring and protection equipment,

wherein said measurements and signals are transferred between the I/O means and the control, measurement, monitoring and protection means by means of a common bus by means of which software modules for control, regulation and protection of said substation have real time access to said measurements and signals.

2. (Original) A control system for an electrical substation according to claim 1, wherein in-signals are arranged transferrable via the I/O means and functions of control, protection and monitoring implemented as software modules in substantially one computer.

3. (Original) A control system for an electrical substation according to claim 1, wherein out-signals and/or maneuver instructions are arranged transferrable via the I/O means from functions of control, protection and monitoring implemented as software modules substantially in one computer.

4. (Original) A control system for an electrical substation according to claim 1, a control and protection function includes software modules providing the operation of any or all of DC Protection, AC Protection, Pole Control, Converter Firing Control running at the same time and substantially in one computer.

5. (Original) A control system for an electrical substation according to claim 1, wherein one or more functions for maintenance is provided and arranged suitably with access to real time values via a bus means.

6. (Original) A control system for an electrical substation according to claim 5, wherein the one or more functions provided for maintenance are arranged suitably with access to stored historical values and measurements from design, test and service operations of the substation control system.

7. (Original) A control system for an electrical substation according to claim 1, wherein the one or more functions for control, operation or maintenance are provided with a software simulation program means arranged suitably with access to stored historical values and measurements from design, test and operation the substation control system.

8. (Original) A control system for an electrical substation according to claim 1, wherein an I/O means of the substation comprises one or more high speed Time Division Multiplexed (TDM) buses.

9. (Original) A control system for an electrical substation according to claim 8, wherein an I/O means of the substation comprises one or more a buses of type Control Area Network according to ISO standard 11898.

10. (Original) A control system for an electrical substation according to claim 8, wherein an I/O means of the substation comprises one or more Digital Signal Processors (DSP).

11. (Original) A control system for an electrical substation according to claim 8, wherein a Human Machine Interface is provided equipped with schematic representations of lines such that real time values may be displayed on request for parts or components of said lines.

12. (Original) A control system for an electrical substation according to claim 8, wherein a Human Machine Interface is provided equipped with schematic representations of circuits such that real time values may be displayed on request for parts or components of said circuits.

13. (Original) A method to control a substation for the transmission and/or distribution of electrical power, by means of making measurements and registering one or more

operational states, generating in-signals dependent on measurements and states of the transmission and/or distribution process, accessing set values, making comparisons between set values said measurements and states, and generating out-signals in dependence on those comparisons,

wherein the method include the steps of:

- receiving in-signals from a plurality of measuring instruments to an I/O means,
- transferring the in-signals via the I/O means to a bus means,
- receiving the in-signals via the bus means via a bus of a computer,
- sending out signals and/or manoeuvre instructions from the computer to the process of the substation via the bus means and an I/O means.

14. (Original) A method to control a substation for the transmission and/or distribution of electrical power according to claim 13, wherein

- in-signals are sampled,
- states of equipment are sampled,
- set values are accessed and compared to in-signals and/or states,
- comparisons are made and monitoring out-signals and condition states are generated.

15. (Original) A method to control a substation for the transmission and/or distribution of electrical power according to claim 13, wherein

- in-signals are sampled,
- states of equipment are sampled,
- set values are accessed and compared to in-signals and/or states,

-comparisons are made and out-signals, manoeuvre instructions and states are generated to regulate a part of the process in the substation.

16. (Original) A method to control a substation for the transmission and/or distribution of electrical power according to claim 13, wherein

- in-signals are sampled,
- states of equipment are sampled,
- set values are accessed and compared to in-signals and/or states,
- comparisons are made and out-signals and condition states are generated to provide information for a maintenance function for a part of the substation.

17. (Original) A method to control a substation for the transmission and/or distribution of electrical power according to claim 13, wherein said substation control system is operated by making selections from a graphical representation on a screen display means of any of:

- a computer connected by a LAN network to the control system;
- a computer connected by a WAN network to the control system;
- a computer connected by a telephone network to the control system;
- a computer connected by a short range radio link to the control system;
- a mobile telephone connected by a telephone network to the control system; or
- a mobile telephone connected by a short range radio link to the process system.

18. (Currently Amended) ~~Use of a~~ A control system according to claim 1, including means to provide a control function for a substation of a power transmission and distribution system.

19. (Currently Amended) ~~Use of a~~ A control system according to claim 1, including means to provide a protection function to a substation of a power transmission and distribution ~~systems~~ system.

20. (Currently Amended) ~~Use of a~~ A control system according to claim 1, including means to provide a maintenance function for a substation of a power transmission and distribution system.

21. (Currently Amended) ~~Use of a~~ A Control ~~control~~ system for a substation according to claim 1, including means to provide a condition monitoring system to monitor the condition of a high voltage DC converter station.

22. (Currently amended) ~~Use of a~~ A control system according to claim 1, including means to provide control functions for a power transmission and distribution system associated with any type of electrical generating plant as diverse as a wind power generator, a wind farm, a tidal power plant, a fuel cell, a combined generation and storage plant.

23. (Currently Amended) ~~Use of a~~ A control system according to claim 1, including means to provide control functions for a power transmission and distribution system associated with any type of industrial plant as diverse as plants such as an airport, a hospital, a paper mill, a petroleum refinery or a vehicle assembly plant.

24. (Currently Amended) A method according to claim 13, including a computer program product comprising computer code means or software code portions for enabling a computer or a processor to carry out the steps of ~~any of the methods according to claim 13~~ method.

25. (Currently Amended) The ~~computer program product of~~ method according to claim 24, wherein the computer code means or software code portions comprise executable parts

formed written in as one or more object oriented programs and accessible and implementable over a network such as the Internet.

26. (Currently Amended) A method according to claim 13, including computer program contained in a computer readable medium, comprising computer program code means to make a computer or processor carry out the steps of a the ~~method according to claim 13.~~

Oath/Declaration:

With respect to the Examiner's objection to the Declaration, it is believed that the Declaration filed April 11, 2002 is not defective. The change referred to by the Examiner is to correct a typographical error in the residence address of the Applicant. For the record herein, the residence address of the inventor is: "Plommonstigen 23, SE 771 43 Ludvika, Sweden.

It is submitted that the substance of the Oath has not been altered in the correction of the typographical error in the address. Further, 37 C.F.R. 1.63(c) allows for the submission of a data sheet providing the mailing address and residence of the inventor. Applicant's representative having presented the information herein, it is believed that the requirements of the regulations have been met and such a determination is earnestly solicited.